

1    WHAT IS CLAIMED IS:  
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3    1.    A method for inter-node communication, comprising the steps of:

4                dividing a plurality of unencoded signals into groups at a first node,  
5                wherein each group has a number of unencoded signals;6                transforming each group of unencoded signals into a group of encoded  
7                signals, wherein each group of encoded signals has nearly an equal number of  
8                logic 1's and logic 0's; and9                transmitting the groups of encoded signals to a second node, whereby  
10               the groups of encoded signals are transmitted with minimal current  
11               fluctuations.12               2.    The method of claim 1 wherein each group of unencoded signals  
13               includes an equal number of signals.14               3.    The method of claim 1 wherein the transforming step includes the step  
15               of transforming the groups of unencoded signals into groups of encoded  
16               signals having an equal number of logic 1's and logic 0's.17               4.    The method of claim 1 wherein the step of transforming each group of  
18               unencoded signals into a group of encoded signals comprises the step of  
19               transforming a group of six unencoded signals into a group of eight encoded  
20               signals.21               5.    The method of claim 1 wherein the step of transforming each group of  
22               unencoded signals into a group of encoded signals comprises the step of  
23               transforming a group of four unencoded signals into a group of six encoded  
24               signals.

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3 6. The method of claim 1 further comprising the step of selecting an  
4 encoding scheme prior to performing the step of dividing a plurality of  
5 unencoded signals into groups.

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8 7. The method of claim 6 wherein the encoding scheme transforms a  
9 group of unencoded signals to encoded signals such that a difference between  
10 a total number of unencoded data values and a total number of encoded data  
11 values is a predetermined fraction of the total number of unencoded data  
12 values.

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15 8. The method of claim 1 further comprising the step of transforming the  
16 groups of encoded signals received by the second node back into the plurality  
17 of unencoded signals.

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20 9. A method for inter-node communication, comprising the steps of:

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22 dividing a plurality of unencoded signals into groups at a first node,  
23 wherein each group has a number of unencoded signals;

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25 transforming each group of unencoded signals into a group of encoded  
26 signals, wherein each group of encoded signals has nearly a constant number  
27 of logic 1's and logic 0's; and

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29 transmitting the groups of encoded signals to a second node, whereby  
30 the groups of encoded signals are transmitted with minimal current  
31 fluctuations.

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34 10. The method of claim 9 wherein each group of unencoded signals  
35 includes an equal number of signals.

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2 11. The method of claim 9 wherein the transforming step includes the step  
3 of transforming the groups of unencoded signals into groups of encoded  
4 signals having a constant number of logic 1's and logic 0's.

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7 12. The method of claim 9 further comprising the step of selecting an  
8 encoding scheme prior to performing the step of dividing a plurality of  
9 unencoded signals into groups.

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12 13. The method of claim 12 wherein the encoding scheme transforms a  
13 group of unencoded signals to encoded signals such that a difference between  
14 a total number of unencoded data values and a total number of encoded data  
15 values is a predetermined fraction of the total number of unencoded data  
16 values.

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19 14. The method of claim 9 further comprising the step of transforming the  
20 groups of encoded signals received by the second node back into the plurality  
21 of unencoded signals.

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